

**GOVERNMENT OF INDIA  
POWER  
LOK SABHA**

UNSTARRED QUESTION NO:1608

ANSWERED ON:31.07.2003

POTENTIAL OF INSTALLED CAPACITY OF HYDRO POWER IN NORTH-EAST

T.M. SELVAGANAPATHI

**Will the Minister of POWER be pleased to state:**

- (a) whether the entire North-East region is estimated to have a hydro power potential of 63,257 MW but till 2002-03 only a potential of 1,145 MW installed capacity has been developed;
- (b) if so, the reasons therefor;
- (c) whether the Government have decided to set up a number of projects in this region with a cumulative hydro power generating capacity of 25,000 MW;
- (d) if so, the details thereof;
- (e) whether the Government are also planning to set up hydro power projects in many parts of the country to tap its potential; and
- (f) if so, the details thereof?

**Answer**

THE MINISTER OF STATE IN THE MINISTRY OF POWER( SHRIMATI JAYAWANTI MEHTA )

(a) : As per re-assessment studies carried out by Central Electricity Authority from 1978-87, the identified hydro capacity of North Eastern region has been estimated as 58971 MW. Out of the above, 1070 MW of the identified potential has been harnessed so far while another 379 MW is under construction after investment approval (considering H.E. schemes of capacity more than 3 MW).

(b) : The reasons for slow development of hydro electric potential in North Eastern region are:

- i) Rehabilitation Problems
- ii) Inter-State Aspects
- iii) Environment and Forest Clearance Problems
- iv) Law & Order Problems
- v) Land acquisition Problems
- vi) Geological Surprises
- vii) Location of hydro sites in remote & inhospitable area

(c) & (d): Yes, Sir. A number of projects have been planned by the Government for implementation in the North Eastern Region of country. Some of the major projects are listed in Annex-I.

(e) : Yes, Sir, 14393 MW of hydro power is proposed to be added in the 10th Plan and about 23000 MW of hydro power is proposed to be added in the 11th Plan. In addition, Government has launched a `50,000 MW Hydro Electric initiative` in May 2003 under which Preliminary Feasibility Reports in respect of 162 H.E. Schemes spread over different regions of the country with an estimated installed capacity of about 50,000 MW are to be prepared by different agencies in the Central /State Sector. These include sixty schemes with estimated capacity of 30427 MW in North Eastern region as per details given below:

Sl. Name of State No. of Schemes I.C. (MW)  
No.

1. Arunachal Pradesh 42 25690

2. Manipur 3 407

3. Meghalaya 9 1490

4. Nagaland 3 970

5. Mizoram 3 1870

Total = 60 30427

(f) : The details of hydro capacity addition proposed during 10th & 11th Plan is at Annex-II.

#### ANNEX-I

ANNEX REFERRED TO IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION NO. 1608 TO BE ANSWERED IN THE LOK SABHA ON 31.07.2003.

Major Hydro Projects proposed for development in N.E. Region

Sl. No.	Name of Schemes / State / Executing Agency	I.C. (MW)
1.	Kameng, Arunachal Pradesh, NEEPCO	4 x 150 = 600
2.	Subansiri Lower, Arunachal Pradesh, NHPC	8 x 250 = 2000
3.	Subansiri Middle, Arunachal Pradesh, NHPC	8 x 200 = 1600
4.	Subansiri Upper, Arunachal Pradesh, NHPC	8 x 250 = 2000
5.	Siang Middle, Arunachal Pradesh, NHPC	4 x 250 = 1000
6.	Siang Upper, Arunachal Pradesh, NHPC	11000
7.	Ranganadi Stage-II, Arunachal Pradesh, NEEPCO	2 x 65 = 130
8.	Dikrong, Arunachal Pradesh, NEEPCO	2 x 50 = 100
9.	Kopili H.E. Project - Stage-II, Assam, NEEPCO	25
10.	Lower Kopili, Assam, NEEPCO	3 x 50 = 150
11.	Hirit, Arunachal Pradesh, NEEPCO	50
12.	Papumpam, Arunachal Pradesh, NEEPCO	60

13. Tipaimukh, Manipur, NEEPCO	1500
14. Tuivai, Mizoram, NEEPCO	3 x 70 = 210
15. Bairabi, Mizoram, Govt. of Mizoram	2 x 40 = 80
16. Tuirial H.E. Project, Mizoram, NEEPCO	60
17. Tripura Gas based Power Project, Tripura, NEEPCO	280
Total =	20845

ANNEX- II

ANNEX REFERRED TO IN REPLY TO PART (f) OF UNSTARRED QUESTION  
NO.1608 TO BE ANSWERED IN THE LOK SABHA ON 31.07.2003.

Hydro capacity addition proposed during 10th Plan

(excluding renewable and projects- up to 25 MW capacity  
under MNES)  
As on 1.7.2003

ID No	Name of Project/ State	Rating Nox MW = MW	Benefits During 10th plan 2002- 07	Remark
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A. Units Commissioned

SS-6	Sardar Sarovar Guj/Mah/M.P Gujarat	6x200 +5x50= 1450 MW	100	
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SS-8	Bansagar Tons PH-III; 3x20= 90 MW Madhya Pradesh	PH- II 2x15 20	15	
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SS-12	Srisaillam LBPH Andhra Pradesh	6x150= 900 MW	300	
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PT- 1	Baspa-II Himachal Pradesh	3x100= 300 MW	300	
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Sub. Total (A) Units	commissioned.		735	
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B Projects under execution  
N.H.P.C.

CS-1 Dhauliganga- I Uttaranchal.	4x70= 280 MW	280
CS-2 Chamera Stage-II Himachal Pradesh	3x100= 300 MW	300
CS-3 Dulhasti Jammu & Kashmir	3x130= 390 MW	390
CS-4 Teesta- V Sikkim Joint venture with M.P. state (N.H.D.C.)	3x170= 510 MW	510
CS-9 Indira Sagar Madhya Pradesh Joint venture with W.B. State	8x125= 1000 MW	1000
CS-11 Purlia PSS West Bengal Sub. Total NHPC including Joint Vent. N.J.P.C.	4x225= 900 MW	900 3380
CS-12 Nathpa Jhakri Himachal Pradesh T.H.D.C.	6x250= 1500 MW	1500
CS-14 Tehri St.I Uttaranchal	4x250= 1000 MW	1000
CS-16 Koteshwar Uttaranchal	4x100= 400 MW	400
Sub Total THDC N.E.E.P.CO		1400
CS-17 Kopili St- II Assam	1x25= 25 MW	25
CS-18 Tuirial Mizoram	2x30= 60 MW	60
Sub total NEEPCO. Sub. Total (B)		85 6365
Central Sector.		
State Sector (S.S.)		
Northern Region (NR)		
SS-1 Larji Himachal Pradesh	3x42= 126 MW	126

SS-3 Baglihar Jammu & Kashmir	3x150= 450 MW	450
SS-5 Maneri Bhali-II Uttaranchal	4x76= 304 MW	304
Sub. Total	880	
S.S. (NR) Western Region (WR)		
SS- 6 Sardar Sarovar Guj/Mah/M.P Gujarat	6x200 +5x50= 1450 MW	1350
SS-7 Madhikheda Madhya Pradesh	2x20= 40 MW	40
SS- 9 Bansagar Tons PH- IV Madhya Pradesh	2x10= 20 MW	20
SS-10 Ghatghar PSS Maharashtra	2x125= 250 MW	250
Sub. Total S.S. (WR)	1660	
Southern Region (SR)		
SS-12 Srisaillam LBPH Andhra Pradesh	6x150= 900 MW	150
SS-13 Almatti Dam Karnataka	1x15 +5x55= 290 MW	290
SS-15 Pykara Ultimate Tamil Nadu	3x50= 150 MW	150
SS-16 Bhawani Kattalai Barrage I Tamil Nadu	2x15=30 MW	30
Sub. Total S.S. (SR)		620
Total (S.S)		3160
Private Sector (PS)		
PT-3 Vishnu Praayag Uttaranchal	4 x 100 = 400 MW	400
Sub. Total (B)- under execution		9925

C Projects works taken up earlier & presently under hold

SS-18	Karbi Langpi (Lower Borpani) Assam	2x50= 100 MW	100
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PT-4	Mareshwar	10x40= 400 MW	400
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M.P.  
Sub. Total (C)- works to be taken up 500

D Projects under award process/ works to commence

CS-10	Omkareshwar Madhya Pradesh	8x65= 520 MW	520
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SS-2	Kashang-I Himachal Pradesh	2x33= 66 MW	66
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SS-11	Priyadarshini Jurala Andhra Pradesh	6x39.1= 235 MW	78.2
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SS-14	Kuttiyadi Aug. Kerala	2x50= 100 MW	100
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SS-16	Bhawani Kattalai Barrage II & III Tamil Nadu	2x2x15=60 MW	60
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SS-17	Balimela Ext Orissa	2x75= 150 MW	150
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SS-19	Myntdu (Leshka) St-I Meghalaya	2x42= 84 MW	84
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PT-2	Dhamwari Sunda Himachal Pradesh	2x35= 70 MW	70
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Sub. Total (D)- under award/ works to commence 1128.2

H.E. Projects under approval (CEA cleared)

CS-5	Sewa-II (NHPC) Jammu & Kashmir	3x40= 120 MW	120
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CS-6	Teesta Low	4x33= 132 MW	132
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dam III  
(NHPC)  
West Bengal

CS-15 Tehri St.2 PSS 4x250= 1000 MW 1000  
Uttaranchal

SS-4 2x40 +2x40+1x8= 168 MW 168  
Shahpurkandi  
Punjab

SS-20 Bairabi Dam 2x40= 80 MW 80  
Mizoram

Sub. Total (E)- under approval 1500

#### F. New Projects

CS-7 Teesta Low Dam- 4x42= 168 MW 168  
IV West Bengal

CS-8 Bav-II 37 MW 37  
Maharashtra

CS-13 Rampur H.E. 400 MW 400  
Project  
Himachal Pradesh  
(Joint Venture)

Sub. Total (F)- New Projects 605

Total All India. 14393.2

Note: The following Inter-state & other extraneous issues have important bearing on commissioning:

1) Raising of Indira Sagar Dam to minimum level of 243.19m (MDDL): Approval to raise the height up to El 238.0 m has been received. Further raising of Dam is linked to R&R, which is to be done by MP Government.

2) Rehabilitation, uncertain situation (law & order) and Closure of Diversion tunnels T1 & T2.

3) Transmission line clearance from MOEF is still awaited for reserved forest.

4) Capacity addition of 100 MW has already been achieved in year 2003-04 on 27/5/2003.

HYDRO PROJECTS FOR BENEFITS DURING 11 th PLAN

S.No.	Name of Scheme	State/Agency	IC (MW)	11th plan
1	PARBATI - I (Rejected by MOEF)	NHPC	750	750
2	PARBATI - II	NHPC	800	800
3	PARBATI - III	NHPC	520	520
4	PAKALDUL	NHPC	1000	1000
5	BURSAR	NHPC	1020	1020
6	NIMBOO BAZGO	NHPC	445	45
7	CHAMERA - III	NHPC	231	231
8	THOPAN POWARI	NJPC	400	400
9	SHONGTONG KARCHAM	NJPC	400	400
10	KOL DAM	NTPC	800	800
11	LOHARI NAGPALA	THDC	520	520
12	PALAMANERI	THDC	416	416
13	UHL - III	HP	100	100
14	CHIRGAON	HP	46	46
15	PUDITAL LASS	HP	36	36
16	TANGU ROMAI	HP	44	44
17	KASHANG - II	HP	94	94
18	SAWARA KUDDU	HP	144	144
19	SORANG	HP	100	100
20	TIDONG	HP	100	100
21	RENUKA DAM	HP	40	40
22	PARNAI	J&K	37.5	37.5
23	NEW GANDERBAL	J&K	45	45
24	SONEMARG	J&K	120	120
25	GANGABAL	J&K	100	100
26	SITKARI KULAN	J&K	84	84
27	SAWALKOT	J&K	600	600
28	SYL CANAL	PUNJAB	50	50
29	UBDC-MHP-III	PUNJAB	105	105
30	SHAHPURKANDI Extn.	PUNJAB	56	56
31	TUINIPALASU	UTTARANCHAL	42	42
32	ALLAIN DUHANGAN	HP	192	192
33	KARCHAM WANGTOO	HP	1000	1000
34	HARSAR	HP	60	60
35	BUDHIL	HP	70	70
36	KUGTI	HP	45	45
37	BHARMOUR	HP	45	45
38	DHAULASIDH	HP	50	50
39	MALANA II	HP	100	100
40	SAINJ	HP	100	100
41	SRINAGAR	UTTARANCHAL	330	330
42	HOGANAKAL	NHPC	120	120
43	MEKADATU	NHPC	400	400
44	RASIMANAL	NHPC	360	360
45	UPPER KRISHNA	NHPC	810	810
46	SIVASAMUDRAM	NHPC	270	270
47	N SAGAR TAIL	AP	50	50
48	JURALA PRIYA	AP	235	157
49	MAHADAYI	KARNATAKA	320	320
50	VARAHI	KARNATAKA	230	230
51	P. KUTTY	KERALA	240	240
52	ADIRAPALLY	KERALA	163	163
53	KOEL KARO	NHPC	710	710
54	FARAKKA BARRAGE	NHPC	125	125
55	RATHANGCHU	SIKKIM	30	30
56	RAMMAM ST IV	WB	60	60
57	RAMAM-1	WB	36	36
58	BALIMELA DPH	ORISSA	60	60
59	RANGANADI-II	NEEPCO	130	130
60	KAMENG	NEEPCO	600	600

61	TUIVAI	NEEPCO	210		210
62	LOWER KOPILI	NEEPCO	150		150
63	DIKRONG	NEEPCO	100		100
64	TIPAIMUKH	NEEPCO	1500		1500
65	LOKTAK DS	NHPC	90		90
66	SUBANSIRI UPPER	NHPC	2000	2000	
67	SUBANSIRI MIDDLE	NHPC	1600		1600
68	SUBANSIRI LOWER	NHPC	2000		2000
Total			23836.5	23358.5	